

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number	10/609,017
Filing Date	June 27, 2003
First Named Inventor	Larry J. Markoski
Group Art Unit	1746
Examiner Name	
Attorney Docket Number	09800240-0030

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
Dmj	1	2002/0041991	04-11-2002	Chan et al.	
	2	2002/0028372	03-07-2002	Ohlsen et al.	
	3	5,952,118	09-14-1999	Ledjeff et al.	
	4	5,863,671	01-26-1999	Spear, Jr. et al.	
	5	5,858,567	01-12-1999	Spear, Jr. et al.	
	6	5,648,183	07-15-1997	Licht et al.	
	7	5,534,120	07-09-1996	Ando et al.	
	8	5,413,881	05-09-1995	Licht et al.	
	9	4,732,823	03-22-1988	Ito et al.	
	10	4,652,504	03-24-1987	Ando	
	11	4,311,594	01-19-1982	Perry	
	12	4,066,526	01-03-1978	Yeh	
	13	3,902,916	09-02-1975	Warszawski	
	14	3,849,275	11-19-1974	Candor	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁵
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
Dmj	15	WO 01/37357	05-25-2001	Neah Power Systems, Inc.		<input type="checkbox"/>
Dmj	16	JP 10-211447 A	08-11-1998			<input type="checkbox"/>
Dmj	17	JP 4-284889	10-09-1992			<input type="checkbox"/>

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SignatureDate
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2/16/05

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
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		Filing Date	June 27, 2003
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		Group Art Unit	1746
		Examiner Name	
Sheet 2	of 2	Attorney Docket No.	09800240-0030

OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DMJ	18	BRANEBJERG et al., "Application of Miniature Analyzers from Microfluidic Components to uTAS," Proceedings of Micro Total Analysis Systems Conference, Netherlands, 1994, pp. 141-151.	
	19	BRODY et al., "Diffusion-Based Extraction in a Microfabricated Device," Sensors and Actuators, 1997, pp. 13-18, Vol. A58.	
	20	CARRETTE et al., "Fuel Cells-Fundamentals and Applications," Fuel Cells, 2001, pp. 5-39, Vol. 1	
	21	CHOBAN et al., "Microfluidic Fuel Cells That Lack a PEM," Proceedings of the Power Sources Conference (40 th), 2002, pp. 317-320.	
	22	DUFFY et al., "Rapid Prototyping of Microfluidic Systems in Poly(dimethylsiloxane)," Anal. Chem., 1998, pp. 4974-4984, Vol. 70.	
	23	EG&G SERVICES et al., Fuel Cell Handbook, Fifth Edition, 2000, U.S. Department of Energy, Office of Fossil Energy, National Energy Technology Laboratory, pp. 1-xiii, 1-1 to 12-4.	
	24	HEINZEL et al., "A Review of the State-of-the-Art of the Methanol Crossover in Direct Methanol Fuel Cells," J. Power Sources, 1999, pp. 70-74, Vol. 84.	
	25	KENIS et al., "Microfabrication Inside Capillaries Using Multiphase Laminar Flow Patterning," Science, 1999, pp. 83-85, Vol. 285.	
	26	KIM et al., "Diffusion-Based Sample Cleanup Microchip for Protein Analysis by Electrospray Ionization Mass Spectrometry," obtained at http://pittcon.omnibooksonline.com/2001/papers/0226.pdf as of at least July 24, 2001, 2 pages.	
	27	MARKOSKI, "Summary of Knowledge About Laminar Flow Fuel Cells," 2002, 1 page.	
	28	PICKETT et al., "Ionic Mass Transfer in Parallel Plate Electrochemical Cells," J. Applied Electrochemistry, 1972, pp. 151-156, Vol. 2.	
	29	RO et al., "Sample Clean-Up Using Multiphase Laminar Microfluidics for Electrospray Ionization Mass Spectrometry," obtained at http://nanotech.osu.edu/abstracts/hahn.htm as of at least July 24, 2001, 2 pages.	
	30	THOMAS et al., "Los Alamos National Laboratory Monograph LA-UR-99-3231," Fuel Cells: Green Power, 1999, pp. 1-33.	
	31	WASZCZUK et al., "Methanol Electrooxidation on Platinum-Ruthenium Nanoparticle Catalysts," J. Catalysis, 2001, pp. 1-6, Vol. 203.	
DMJ	32	ZHAO et al., "Surface-Directed Liquid Flow Inside Microchannels," Science, 2001, pp. 1023-1026, Vol. 291.	


Examiner Signature		Date Considered	2/16/05
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Form PTO-1449 (Rev. 8-88)		Attorney Docket No. ILL02-019-CIP-US	Serial No. 10/609,017
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Applicant: Larry J. Markoski, et al.	
		Filing Date: June 27, 2003	Group: 1746

U.S. PATENT DOCUMENTS							
Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
<i>Only</i>	B1	6,312,846	11/2001	Marsh, et al.			
<i>Only</i>	B2	5,534,120	09/1996	Ando, et al.			

FOREIGN PATENT DOCUMENTS								
Examiner Initial*		Document Number	Date	Country	Class	Subclasses	Translation	
							Yes	No
<i>Only</i>	B3	WO00/15872	03/2000	WIPO				

Examiner Initial*	OTHER ITEMS - NON PATENT LITERATURE DOCUMENTS	
	Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages	
<i>Only</i>	B4	E. Choban, et al., "Microfluidic Fuel Cells That Lack A PEM" Power Sources Proceedings, vol. 40, 2002, pp. 317-320, XP009031634
<i>Only</i>	B5	R. Ferrigno, et al., "Membraneless Vanadium Redox Fuel Cell Using Laminar Flow" JACS Communications, vol. 124, 2002, pp. 12930-12931, XP002282850
<i>Only</i>	B6	M. Mench, et al., "Design of Micro Direct Methanol Fuel Cell (Proceedings of the IMECE'01, November 11-16, 2001)", 2001, The American Society of Mechanical Engineers, New York XP002282851
<i>Only</i>	B7	S. C. Kelley, et al., "A Miniature Methanol/Air Polymer Electrolyte Fuel Cell", Electrochemical and Solid-State Letters, IEEE Service Center, Piscataway, NJ, vol. 3, no. 9, 2000, pp. 407-409, XP001023907

Examiner <i>Deane</i>	Date Considered <i>2/16/06</i>
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